

# STATEMENT OF BASIS for PSE&G CENTRAL GAS PLANT

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## TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 17824 / Permit Activity Number: BOP160001

### I. FACILITY INFORMATION

PSE&G Central Gas Plant is located at 410 Silver Lake Avenue in Edison, Middlesex County, New Jersey 08817 and is an electric and gas utility company. The facility is owned and operated by Public Service Electric and Gas (PSE&G).

The facility is a formerly major facility that has a Title V permit, but has reduced its emissions below major source threshold. It has the potential to emit (PTE) of 11.3 tons per year (tons/yr) of Carbon Monoxide (CO), 15.7 tons/yr of Nitrogen Oxides (NO<sub>x</sub>), 6.95 tons/yr of Volatile Organic Compounds (VOC), 1.16 tons/yr of Total Suspended Particulates (TSP), 1.08 tons/yr of Particulate Matter less than 10 microns (PM<sub>10</sub>), and 17,232 tons per year of Greenhouse Gases as carbon dioxide equivalent (CO<sub>2</sub>e) to the atmosphere.

This permit does not contain any hazardous air pollutants.

### II. AREA ATTAINMENT CLASSIFICATION

The Federal Clean Air Act (CAA) sets National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are particulate matter, ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead. The US Environmental Protection Agency (USEPA) also classifies areas as "attainment" or "nonattainment" for each criteria pollutant, based on the magnitude of an area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. Currently, the entire State of New Jersey is designated as nonattainment for the 8-hour ozone NAAQS. New Jersey is designated attainment for all other pollutants. For nonattainment classification refer to <http://www3.epa.gov/airquality/greenbook/multipol.html>

### III. BACKGROUND AND HISTORY

The facility's current operating permit was approved on June 14, 2016. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit. This modification would allow the following changes to the facility's approved operating permit:

- Addition of a new 13 Million British Thermal Unit per hour (MMBtu/hr) Higher Heating Value(HHV) Natural Gas Vaporizer, Equipment ID E37, at Emission Unit U15, with Emission Points PT71 and PT72, with resultant increase in emissions.
- Removal of a 15.4 MMBtu/hr (HHV) vaporizer, Equipment ID E32, at Emission Unit U11 with its Emission Points PT 37 and PT38, without decreasing the fuel cap at U11. The removal of this vaporizer will not decrease the emissions from U11 as the same fuel will now be used by the two remaining vaporizers instead of the three.
- Transfer of ownership from PSEG Fossil LLC to PSE&G, to change the name of the facility from PSEG Edison Generating Station to PSE&G Central Gas Plant, and to replace the responsible official.

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This modification will also change the facility-wide emission limits as listed in the following table:

Allowable Emission Limits	Facility's Potential Emissions (tons per year)										
	VOC (total)	NO <sub>x</sub>	CO	SO <sub>2</sub>	TSP (total)	Other (total)	PM <sub>10</sub> (total)	PM <sub>2.5</sub> (total)	Pb	HAPs (total)	CO <sub>2</sub> e (total)
Current Permit	4.68	10.8	6.57	0.0	0.78	0.0	0.72	NA	0.0	0.0	11,220
Proposed Permit	4.95	15.7	11.3	0.18	1.16	0.0	1.08	NA	0.0	0.0	17,232
Change (+ / -)	+0.27	+4.9	+4.73	+0.18	+0.38	0	+0.36	NA	0	0	+6,012

VOC Volatile Organic Compounds

NO<sub>x</sub> Nitrogen Oxides

CO Carbon Monoxide

SO<sub>2</sub> Sulfur Dioxide

TSP Total Suspended Particulates

Other Any other air contaminant regulated under the Federal Clean Air Act

PM<sub>10</sub>

PM<sub>2.5</sub>

Pb

HAPs

CO<sub>2</sub>e

Particulates under 10 microns

Particulates under 2.5 microns

Lead

Hazardous Air Pollutants

Carbon Dioxide equivalent

## IV. CASE-BY-CASE DETERMINATIONS

No case-by-case determinations were required for this modification.

## V. EMISSION OFFSET REQUIREMENTS

This modification is not subject to Emission Offset requirements.

## VI. BASIS FOR MONITORING AND RECORDKEEPING REQUIREMENTS

The facility's operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's continued compliance with the applicable requirements consistent with the following:

- Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and
- Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit.
- In situations where the underlying applicable requirement did not specify any periodic testing or monitoring, the following factors were considered in the evaluation and determination of the appropriate methodology for compliance demonstration for each emission unit:
  - Pollutant's potential impact on public health and environment.
  - Emission unit and control device (older, less reliable equipment generally require more monitoring to ensure ongoing compliance).
  - Compliance history and margin of compliance.
  - Emissions variability and process stability (emissions units with highly variable process rates or materials generally require more monitoring to ensure ongoing compliance)
  - Quantity of emissions (emissions units that will have more impact on the environment generally require more monitoring to ensure ongoing compliance).

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#### VII. APPLICABLE STATE AND FEDERAL RULES

This modification is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 through 34, as applicable. A complete text of these regulations is available at:

<http://www.nj.gov/dep/aqm/rules27.html>

This modification is also subject to Federal regulations listed below.

NSPS Subpart A:	New Source Performance Standards - General Provisions
NSPS Subpart Dc:	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
MACT Subpart A:	NESHAP for Source Categories (MACT Standards) - General Provisions
MACT Subpart DDDDD:	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers

The Greenhouse Gas (GHG) emissions from this facility are 17,232 TPY CO<sub>2</sub>e and the GHG emissions increase are less than 75,000 TPY CO<sub>2</sub>e.

#### VIII. FACILITY'S COMPLIANCE STATUS

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, the Department's evaluation of the information included in the facility's application, and a review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. A permit shield provides that compliance with the relevant conditions of the operating permit shall be deemed compliance with the specific applicable requirements that are in effect on the date of issuance of the draft operating permit, and which form the basis for the conditions in the operating permit.

Prior to the expiration of the Operating Permit's five-year term, the facility will be required to apply for a renewal, at which time the Department will evaluate the facility and issue a public notice with its findings.

#### IX. EXEMPT ACTIVITIES

The facility's operating permit does not include exempt activities such as office and interior maintenance activities, maintenance shop activities, food preparation facilities, cafeterias and dining rooms, etc. A complete list of exempt activities, as allowed by the Operating Permit rule, can be found at N.J.A.C. 7:27-22.1.

FACILITY NAME (FACILITY ID NUMBER)

BOP050001

Activity Number  
(assigned by the  
Department)

# New Jersey Department of Environmental Protection Facility Specific Requirements

Emission unit number  
(assigned by the  
facility)

Brief description of emission unit

Emission Unit: U1 25 MM BTU/hour Boiler burning Fuel Oil and Natural Gas  
Operating Scenario: OS Summary OR OSXX Boiler burning Fuel Oil

OS Summary lists all rules and requirements that apply to an emission unit, regardless of operating scenarios. Emission unit may contain one or more pieces of equipment and the corresponding operating scenarios

OSXX denotes the operating scenario number and lists the rules and requirements that apply to a particular scenario. An operating scenario represents various ways (or scenarios) a piece of equipment can operate.

Records to be kept

Submittal  
requirement

Item  
Number

Description of applicable  
requirement

Air contaminants

Monitoring method to  
ensure compliance

Actions to be  
taken by the  
facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Conduct a comprehensive stack test at emission point PTXX at least 18 months prior to the expiration of the approved operating permit to demonstrate compliance with the <u>CO, NOx, TSP and VOC</u> emission limits.[N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack emission testing.</u> Stack test shall be conducted for CO, NOx, TSP, and VOC emissions (add language as needed). Based on any 60-minute period. [N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack test results.</u> [N.J.A.C. 7:27-22.16(e)]	Stack Test - <u>Submit a protocol, conduct stack tests, submit results</u> per the approved schedule. <u>Submit a stack test protocol to the Emission Measurement Section</u> at PO Box 437, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]

Rule citation (subchapter, section, and paragraph) for the applicable requirement

Rule citation for the monitoring requirement

Rule citation for the recordkeeping requirement

Rule citations for the submittal/action requirement

12/18/15